AMENDMENT 1

TO THE 28 AUGUST 1998

MEMORANDUM OF UNDERSTANDING

FOR COOPERATION IN THE ENGINEERING AND MANUFACTURING DEVELOPMENT (EMD) PHASE OF THE U.S. LIGHTWEIGHT 155mm HOWITZER (LW155) PROGRAM

BETWEEN

THE SECRETARY OF DEFENSE ON BEHALF OF THE DEPARTMENT OF DEFENSE

OF THE UNITED STATES OF AMERICA

AND

THE SECRETARY OF STATE FOR DEFENCE

OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

TO ADD

THE MINISTER OF DEFENSE OF THE ITALIAN REPUBLIC

Certified to be a true copy of the original:

Mr. Tom Noble, IPO-03/03C1, 31 March 1999

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The Secretary of Defense on Behalf of the Department of Defense of the United States of America, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, and the Minister of Defence of the Italian Republic, hereinafter referred to as the "Participants";

Recognizing the Memorandum of Understanding (MOU) of 28 August 1998 between the Secretary of Defense on Behalf of the Department of Defense of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, for the Cooperation in the Engineering and Manufacturing Development (EMD) Phase of the U.S. Lightweight 155mm Howitzer (LW155) Program (the "LW155 EMD MOU");

Having a mutual desire to amend the aforementioned MOU to add Italy as a Participant to the MOU:

Have reached the following understandings:

TITLE PAGE, in line 5, replace "AND" with "THE" and after "NORTHERN IRELAND," add "AND THE MINISTER OF DEFENCE OF THE ITALIAN REPUBLIC."

INTRODUCTION, first paragraph, delete "and" after "America" and insert "and the Minister of Defense of the Republic of Italy," after "Northern Ireland." At the end of the second paragraph, insert "for the U.S. and U.K.". In the third paragraph, after "Recognizing the" delete "Participants" and insert "U.S. and U.K.". After the third paragraph, insert a new paragraph as follows: "Recognizing the Italian and U.S. Agreement Regarding Research and Development on Materials, dated 11 September 1978 and its amendments thereto." In seventh paragraph, third line after "Program, delete "and" and in the fourth line, after "(LIMAWS) Program," insert "and the Italian 155UL Program."

SECTION I DEFINITIONS, add the following new definition:

ISSUL

155 Ultraleggero, Italian Lightweight Mobile Artillery Project

SECTION II OBJECTIVE(S), Paragraph 2.1, first sentence after "U.S./U.K.". add "/Italy". Delete third sentence and insert "The U.K. and Italy are considering eventual procurement of an advanced towed Lightweight 155mm Howitzer in their respective LIMAWS and 155UL programs." Fourth sentence after "U.K.". add "and Italian". Paragraph 2.2, change first sentence to read "For the U.S. and the U.K. this MOU represents a follow-on to cooperation in the U.S. LW155 program begun under an MOU between the U.S. and the U.K. for the Shoot-Off Phase of the U.S. LW155 program, signed on 3 March 1997." At the end of paragraph 2.2, insert "A follow on MOU will be required for cooperative production and in-service support. It is the intention of the Participants to commence these MOU negotiations during the EMD phase.

Each Participant will endeavor to ensure same prices for like items in any potential follow-on cooperation for the production and in-service support of the LW155. It is the intent of the Participants to seek waiver of any applicable national R&D recoupment charges for future cooperative production."

SECTION III SCOPE OF WORK, Paragraph 3.1.1., after "U.K.". insert "Italy". Add new 3.1.3 to read, "Testing necessary to meet Italian UL155 requirements which are not included in the U.S. LW155 EMD program." Change paragraph and subparagraphs "3.2.2." to "3.2.3." Change paragraph and subparagraph "3.2.3." to "3.2.4." and, in new paragraph 3.2.4, after "The U.K." insert "Italy". Insert the following new paragraph "3.2.2." in its entirety:

"3.2.2. Italian work consisting of, but not limited to:

- 3.2.2.1. Planning and coordination of Italian 155UL program testing at U.S. facilities with provisioning of Italian ammunitions;
- 3.2.2.2. Provision of Italian representatives during testing and logistic demonstrations;
- 3.2.2.3. Assignment of an Italian engineer to the U.S. LW155 program office;
- 3.2.2.4. Provision of Italian 155UL program reports and data applicable to the U.S. LW155 EMD effort; and
- 3.2.2.5. Participation in technical and program reviews to include Integrated Product Team (IPT) meetings for the purpose of ensuring Italian requirements are fully considered in the U.S. LW155 EMD program."

In paragraph 3.2.3.2., insert "and 155UL" after "LIMAWS"; and in paragraph 3.2.3.3. insert "and Italian 155UL after "U.K. LIMAWS"

SECTION IV, MANAGEMENT, paragraph 4.1., insert at the end of the paragraph "The PMs or their representatives will expect to meet as a minimum at the scheduled quarterly review meetings." At 4.3., insert at the end of the paragraph "The Italian PM will be the Program Manager for the Italian 15SUL."

SECTION V, FINANCIAL, paragraph 5.2., second sentence change "Cost Target of \$13.4 million" to "Cost Target of "\$20.1 million" and "Cost Ceiling of \$14 million" to "Cost Ceiling of \$21 million". Paragraph 5.4. insert "Italy" in the table and make "Percentage Share" for all Participants "33 1/3%". Paragraph 5.10., second sentence, insert "and Italy" after "The U.K." renumber, consecutively, paragraphs "5.7." through "5.10." starting with "5.8." Insert the following new paragraph 5.7.:

"5.7. The Italian contribution to the Project Cost Target is \$6.7 million U.S. dollars which consists of financial and non-financial contributions to cover effort described in Section III (Scope of Work) and Annex Λ (Project Plan). The Italian financial contribution consists of \$5 million U.S. dollars and funding for use of U.S. range facilities for UI.155 program testing. The Italian non-financial contributions will provide for Italian personnel and testing effort."

SECTION VIII, DISCLOSURE AND USE OF PROJECT INFORMATION, paragraph 8.1., first sentence replace "Both" with "The". Paragraphs 8.2.1 and 8.4.1 replace "both" with "all". Paragraphs 8.3.1, line 2, 8.3.2 line 3, 8.4.2 line 4, 8.5.1 line 7, 8.5.2 lines 3 & 4, 8.7.1 lines 4, 8, 15 and 16, 8.7.2 line 1, 8.7.3 line 1, and 8.7.5 lines 1, 5 and 9 change "Participant" to "Participants". In paragraph 8.3.2, line 2, change "other" to "others". In paragraph 8.7.5, line 6, replace "it" with "them."

SECTION XI SECURITY, Paragraph 11.1., delete reference to the General Security Agreement and replace with "NATO document CM55 15 (Final), dated 31 July 1972, "Security Within the North Atlantic Treaty Organization," and subsequent amendments."

SECTION XII, THIRD PARTY SALES AND TRANSFERS, Paragraph 12.1., second sentence delete "neither" and insert "no".

SECTION XIII, LIABILITY AND CLAIMS, Paragraph 13.1., delete entire paragraph and replace with the following:

- "13.1. Claims against any Participant or their personnel will be dealt with in accordance with the terms of Article VIII of the NATO Status of Forces Agreement (NATO SOFA) dated 19 June 1951. Civilian employees of the Participants assigned to duty within their government's Defense Department or Ministry will be deemed for the purpose of Article VIII of NATO SOFA to be members of a civilian component within the meaning of Article I of NATO SOFA while present in the territory of another Participant for the purpose of this MOU.
- 13.2. Claims arising under or related to any Contract awarded pursuant to Article VI (Contracting Provisions) will be resolved in accordance with the provisions of the Contract.
- 13.3 Employees and agents of Contractors will not be considered to be civilian personnel employed by a Participant for the purpose of paragraph 13.1."

SECTION X, CUSTOMS DUTIES, CHARGES AND SIMILAR CHARGES Add new Paragraph 15.3-"If, in order to apply European Union regulations, it is necessary to levy duties, these will be met by the European Union member end recipient. They will be levied as a cost over and above the relevant Participant's shared costs of the Program."

SECTION XVII, AMENDMENT, TERMINATION, ENTRY INTO EFFECT, AND DURATION, Paragraph 17.7., delete and replace with the following:

"17.7. This MOU, which consists of Introduction, 17 Sections and two Annexes, will enter into effect from the date of the last signature and will remain in effect for five years. It may be extended by the mutual written consent of the Participants."

ANNEX A, PROJECT PLAN, delete entire Annex A and replace with the attached Annex A.

ANNEX B, EMD DATA REQUIREMENTS, delete entire Annex B and replace with the attached Annex B.

SECTION XVII, AMENDMENT, TERMINATION, ENTRY INTO EFFECT, AND DURATION, Paragraph 17.7., delete and replace with the following:

"17.7. This MOU, which consists of the Introduction, 17 Sections and two Annexes, will enter into effect from the date of the last signature and will remain in effect for five years. It may be extended by the mutual written consent of the Participants."

The foregoing represents the understandings reached between the Secretary of Defense on behalf of the Department of Defense of the United States of America, the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, and the Ministry of Defense of the Republic of Italy upon the matters referred to therein. All other provisions of the LW155 EMD MOU will remain unchanged. Signed in triplicate in the English language by authorized representatives.

FOR THE SECRETARY OF DEFENSE ON BEHALF OF THE DEPARTMENT OF DEFENSE OF THE UNITED STATES OF Signature H. Lee Buchanan Name ASN (RD&A) Title 19 March 1999 Date USA Location FOR THE MINISTER OF DEFENCE OF THE ITALIAN REPUBLIC: Signature erto ZIGNANI Name Title <u>26 March 1999</u> Date Location

OF GREAT BRITAIN AND NORTHERN
IRELAND:

Signature

Peter C Norriss
Name

DCDP(Ops)

Title

24 March 1999

Date

London, UK

FOR THE SECRETARY OF STATE FOR

DEFENCE OF THE UNITED KINGDOM

Location

ANNEX A

PROJECT PLAN

As detailed in Section III, Scope of Work, this Annex includes a more detailed listing of the testing, reviews and support of the LW155 Program to be performed as part of this Project:

- A) <u>Conduct of testing</u>: The U.S. will plan, conduct and provide data and assessments of LW155 EMD testing as described in the attached program schedule. The U.K. and Italy will be provided the opportunity to attend LW155 EMD testing. The U.K. and Italy will provide data and assessments from nationally generated tests throughout the Project.
- B) <u>Provisioning of engineers</u>: The U.K. and Italy will furnish engineers to the US LW155 program office who will be integrated into the program office staff. These engineers will represent their respective nations during EMD.
- C) Participation in technical and program reviews: The U.S. will conduct Logistic Product Development, Weapon, System Integration, and Cannon Integrated Product Team (IPT) meetings, as well as quarterly management and design review meetings. The U.K. and Italy will have their co-located engineer, as well as additional technical staff they deem necessary, attend IPT meetings and quarterly reviews for the purpose of ensuring U.K. and Italian requirements are fully considered in the U.S. LW155 EMD program.
- D) Provision of information from program efforts: The U.S. will provide program reports from the LW155 EMD program, to include status reports for the P3I efforts and long range barrel. The U.K. and Italy will provide reports from their national, non-financial, contributing efforts. For the U.K., this will include LIMAWS program testing at Yuma Proving Ground in the U.S. to include fire control, stability and firing table testing. The U.S. will manage this testing while the UK will furnish on-site test personnel and equipment. For Italy, non-financial contribution will include testing regarding the possible development of a national barrel. This testing will be conducted in Italy, or in the U.S. if necessary. The Italian Participant will procure through the Italian prime contractor two LW155 carriages in the final configuration (end of EMD phase) to be used for testing the Italian ordnance and subsequent deliver to the Italian Army. Cost for a carriage and testing will be an Italian expense. The U.S. will assist the U.K. and Italy in the provision of interface drawings necessary for the conduct of national testing and assessments.
- E) Furnish ammunition and support for testing: Each Participant will furnish ammunition for its national testing, as well as its share of ammunition for any additional joint testing, when joint testing is deemed necessary by the Participants. Each Participant will furnish its own on-site test personnel and any unique equipment necessary for national testing.

ANNEX B

EMD DATA REQUIREMENTS

As detailed in Section III, Scope of Work, this Annex includes a more detailed listing of the test data to be exchanged as part of this Project:

- a. Technical test data and assessments, including instrumentation results in raw and reduced form (format as provided by the test facility)
- b. Daily firing notes provided by the PM or the site test representative
- c. Test specifications (Test Plan Requests/Test Plan)
- d. Test Incident Reports (TIRs)
- c. Quarterly progress reviews
- f. Copy of supporting test videos
- g. Supporting still photos (including details of system failures) hard copy and digital formats will be provided as generated
- h. Technical assessments of issues/failures/problems which occur during testing
- i. LW155 extended range program test results
- j. Technical Test and Operational Assessment Shoot-Off reports
- k. LIMAWS Yuma Proving Ground test results
- 1. 155UL national barrel test results